Special Issue

Autonomy Challenges in Unmanned Aviation

Message from the Guest Editors

The Special Issue centers around “Autonomy Challenges in Unmanned Aviation” with the aim to register the state-of-the-art and to discuss and/or propose specific autonomy attributes, measures of autonomy, autonomy metrics, levels of autonomy, etc., for unmanned aviation systems, and how they may be implemented and tested to evaluate performance under nominal and detrimental conditions. The goal is to establish the foundations of an autonomous framework that is verified and validated, and is applicable in real-time. As such, submitted papers should focus on both the underlying theoretical methodology for measuring and evaluating autonomy, as well as on its implementation using a real UAV/UAS. Specific interest are articles that emphasize:

- Foundations of Autonomy: Attributes, quantitative metrics and measures of autonomy, levels of autonomy;
- UAV/UAS design for resilience;
- Self-organizing and reconfigurable UAV/UAS controller designs for autonomous functionality;
- Decision-making;
- Real-time applicable and implementable learning based navigation and control techniques for UAV/UAS autonomous functionality;
- Controller design for nonlinear systems with time-varying and unstructured uncertainties.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Drones is the only international open-access journal about the science, policy and technology of drones and its applications. Nowadays, the proliferation of drones is a reality for local policy makers, regulatory bodies, mapping authorities, startups and consolidated companies. There are many uses and benefits of drones: from the emergence of new sensors and the evolution of new platforms; to the development of specific software and the emergence of new applications. *Drones* publishes reviews, regular research papers, communications and short notes, without restriction on the length of papers. *Drones* seeks to provide a central forum for scholars engaged in drones' research and applications.
There is a need for high quality papers in this area and the *Drones* Editorial Board are widely recognized international leaders. *Drones* journal guarantees a serious peer review and a rapid publication across the whole discipline of drones.

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